

REMARKS:

Claims 1-46 are in the application, and presented for consideration.

The enclosed check for \$1020.00 includes the amount of \$900.00 for 18 additional dependent claims not yet paid for. The Commissioner is authorized to charge or credit Deposit Account No. 14-1431 for any under or over payment of fees which are due under 37 C.F.R. 1.16 or 1.17 with this amendment.

The Examiner has rejected many of the previously presented claims as being indefinite under 35 U.S.C. 112, second paragraph, for claiming different scopes of protection in the same claim. All of the claims have been carefully reviewed, and where needed, amended to claim only a single scope of protection in each claim. Dependent claims have been added to separately claim the narrower scopes of protection.

Various claims have also been rejected as being fully anticipated by four separate references. Other claims have been rejected as being obvious from a combination of two of these references, taken with a secondary references.

Independent claims 1, 4, 19 and 21 have all been amended in a manner which is believed to patentably distinguish the invention over these references for the following reason:

Goetze (DE 36 34 708 A1) describes a machine part with recesses which is to be galvanically coated with chromium. No PVD or CVD process is disclosed or suggested. Moreover, no slide layer is disclosed.

Tarumoto (US 4,636,285) discloses the manufacturing of a sliding member with oil retaining pores in a hard plating layer. On top there is applied a hard ceramic film (see item 9, e. g. titanium nitride or -carbide, in Fig. 6 of the reference) which is technically not a slide layer but a hard, wear resistant coating. **Tarumoto's** microstructure does not extend into the workpiece, but is restricted to the chromium layer 2 (see Figs. 4-6). In Fig. 4 the numeral 5 means "resist layer" which had been structured in order to achieve the pores or recesses 6. It is a intermediate production step and does not represent the product. Fig. 6 shows that Tarumoto's workpiece has a coating in the lower region of the microstructure.

It is believed therefore, that **Tarumoto** does not add anything material to **Goetze** toward the claimed invention. **Tarumoto** rather, teaches away from the invention, since the reference does not suggest having a structure in the workpiece itself **AND** additionally uses a hard coat to complete the structure.

Accordingly, amended claim 1 is believed to be novel over both **Goetze** and **Tarumoto** and, moreover, is not obvious in view of their combination, since both focus on chemical processes like plating for the main coating (please note **Tarumoto** discloses a PVD or CVD method for his final hard coating but gives no advice to avoid coating of the lower region of the microstructures). The remaining claims are believed to even further distinguish the invention over these references.

Beltramini (US 4,661,064) discloses a drill for use in dentistry, wherein certain sections of the head are coated with diamond powder. **Beltramini** does not actually disclose a slide layer as called for example, in claims 2, 4 and other claims.

Beltramini also does not suggest using a PVD or CVD process for coating a drill.

Moreover, the reference represents quite a special field (dentistry) and therefore it is believed the persons of ordinary skill in the art to which the present invention pertains, would not take **Beltramini** into account when looking for teachings to be combined with other references that are within the field of vapor deposition.

Seiko (JP 05 156 425) as cited, constitutes a abstract and discloses an ornamental member. In a first step a colored layer is applied on a surface of a base, subsequently a pattern of recesses is formed by laser beam machining. A second layer is coated thereupon and afterwards "the first and second layers other than the patterned part is etched off." This leaves open, what the "patterned part" means to the person of ordinary skill in the art of this invention.

It has been assumed, based on the statement "ornamental," that the recesses are being filled during the second coating and the final etching step reveals a visible pattern of areas with the first and second coatings. Everything else seems unreasonable. Therefore it is believed that **Seiko** does not disclose all features of even the unamended independent claims of the present invention, and that the amended claims even further distinguish the invention over **Seiko**.

Accordingly all of the claims now presented are believed to be novel and patentable over each these references.

Turning to paragraph 16 of the Action on page 9, and to address the rejections of certain claims as being obvious, claim 3, for example, does not contain a slide layer nor does it depend on a claim with a slide layer. Also, the observation that neither **Goetze** nor **Tarumoto** describe a slide layer is correct, but this observation is contrary to the

observation of paragraph 12, holding that these two references do teach a slide layer (which is not believed to be correct).

The holding of paragraph 16, that: "Thus it would have been obvious [...] to substitute the slide layer of **Goetze**..." would therefore not be the case.

The skilled artisan could not substitute a layer which may or may not be taught by **Goetze**, with a layer from U.S. Patent 6,740,393 fo **Massler** which, likewise may or may not be taught in that reference either, to reach the dependent claims that include the slide layer, in any obvious manner.

Massler discloses a cover layer of adamantine carbon (see e.g. claim 1 of **Massler**), but there is no teaching of a slide layer *per se*.

Referring to paragraph 17 of the Action, **Sumitomo** (JP 2000 178 720) is an abstract disclosing a solid lubricant film on a porous primary layer. Since neither **Goetze** nor **Tarumoto** teach a slide layer, here again the claims that call for such a layer would not be obvious from this combination.

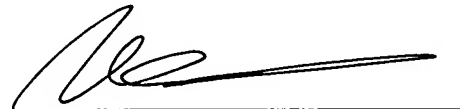
There is believed to be no motivation to combine e.g. **Goetze** or **Tarumoto** with the other prior art references.

A sliding layer is, in fact, within the general state of the art for many applications, however, **Goetze** and **Tarumoto** both describe the pores in their layers in order to retain oil - therefore **Goetze's** and **Tarumoto's** sliding functions are dependent on a lubricant such as oil, and not by a sliding layer. The claimed invention suggests using an additional glide layer in dependant claims 2 and 27 or in independent claim 4.'

Accordingly all of the claims are believed to be novel and unobvious over the prior art and, by this amendment, the application and claims are believed to be in condition for allowance.

Favorable action is respectfully requested and if any issues remain, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,



Peter C. Michalos
Reg. No. 28,643
Attorney for Applicants
Phone: (845) 359-7700

Date: February 1, 2006

NOTARO & MICHALOS P.C.
100 Dutch Hill Road
Suite 110
Orangeburg, New York 10962-2100

Customer No. 21706

PCM: